

12. (Canceled)

13. (Original) The method of claim ~~12~~¹, further comprising the step of inserting a corrective action into the software system, said corrective action comprising a response to the assertion.

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14. (Currently Amended) A method for estimating a safe operating period for a continuously running software system, said method comprising the steps of:

initializing the software system, the software system having inserted therein an assertion;

running the software system for a first pre-determined period;

pausing the software system;

injecting a first data state anomaly into the software system;

running the software system after the data state anomaly has been injected;

with the assertion, trapping values that are known to produce hazardous outputs;

checking for an unacceptable output from the software system;

stopping the software system and logging the unacceptable output if an unacceptable output is observed; and

stopping the software system if a second pre-determined period has elapsed without an unacceptable behavior being observed.